

SPECIFICATION

Electronic Version 1.2.8

Stylesheet Version 1.0

Electronic Video Gambling Device With Player Controlled Amusement Feature

Background of the Invention

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[0001] The present invention relates to wagering games, and more particularly pertains to wagering games of the type played in casinos on an electronic video gaming device.

[0002] A wide variety of electronic arcade games and games adapted for play on personal computers include an input device such as a trackball, joystick, mouse, light gun, touch screen, etc. to enable a player to make control inputs that affect events displayed on an electronic video screen. For example, players of an arcade game known as "Missile Command" use a trackball to attempt to shoot down electronic representations of incoming enemy missiles displayed on video screen.

[0003] Video bowling games for personal computers, such as a shareware game known as WINBOWL, are also known, in which a player uses a control input, a computer mouse for example, to control the path of a video representation of a bowling ball down a video representation of a bowling lane. Examples of online virtual bowling games for personal computers may be played on the Internet at <http://www.brunswickbowling.com/html/game.html> and <http://207.69.132.225/games/bowling/bowl.htm>

[0004] A slot machine known as "Casino Bowling" developed by Anchor Gaming and International Game Technology includes a bonus feature themed around traditional bowling that is achieved when a player lines up three bowling symbols on the

game's payline. The bonus feature encourages players to hit a "roll the ball" button on the game's console, which triggers the game's version of a rolled ball in a bowling alley. A win amount obtained by a player corresponds to their total bowling score. Players who roll a perfect "300" score win a bonus jackpot. The game allows players to experience rolling a simulated bowling ball down a lane and "exploding" bowling pins, which results in a strike, spare, split, or open frame.

Brief Summary of the Invention

[0005] The present invention provides a method and apparatus for playing wagering games on an electronic video gaming device in which a player controls an amusement feature of the device by use of a pointing device, such as a trackball. In an exemplary currently preferred embodiment of the invention, the electronic video gaming device comprises a virtual reel video type slot machine including reel symbols or indicia pertaining to a bowling theme, and the amusement feature comprises an electronic video simulation of at least a portion of a bowling frame, in which the player at least partially controls a position of a video representation of a bowling ball by use of a trackball pointing device. Preferably, the amusement feature is associated with a bonus event that becomes operative only under certain predetermined or randomly determined conditions, such as when a player obtains one or one or more predetermined winning combinations of reel symbols operative to initiate a bonus opportunity. The player control input in connection with the amusement feature may be solely for player amusement and have no actual effect on the outcome of any player wager, or may alternatively control, or at least partially control, the outcome of at least a portion of the play on the electronic video gaming device.

[0006] These and various other advantages and features of novelty which characterize the invention are pointed out with particularity in the claims annexed hereto and forming a part hereof. However, for a better understanding of the invention, its advantages, and the objects obtained by its use, reference should be made to the drawings which form a further part hereof, and to the accompanying descriptive matter, in which there is illustrated and described preferred embodiments of the invention.

Brief Description of the Drawings

[0007] Figure 1 is a front view of an electronic video gambling device according to a preferred embodiment of the present invention.

[0008] Figure 2 is a partial front perspective detail view illustrating player control and video screen components of the electronic video gambling device shown in Figure 1.

Detailed Description of the Invention

[0009] Referring now to Figures 1 and 2, an electronic video gambling device 10 according to an example preferred embodiment of the invention includes a vertically upstanding housing 12 having an electronic video display screen 14. The device 10 may have the same general configuration as depicted in U.S. Design Patent No. 395,463, the entire disclosure of which is incorporated herein by reference. The device 10 includes generally conventional coin 16 and bill 18 acceptors operative to receive coins, tokens, and bills for the purpose of permitting players to place monetary wagers in connection with play of a gambling game on the device 10. As is generally well known in virtual reel types of electronic gaming devices, the gambling device 10 preferably includes an LCD display or counter 20 operative to display an accounting of credits accumulated by the insertion of coins, tokens, or bills by a player into the acceptors 16 and 18. The electronic gambling device 10 preferably also includes a chip or token return tray 22 for the purpose of dispensing chips, coins, or tokens to a winning player during play of a gambling game on the device 10.

[0010] The gambling device 10 also preferably includes a plurality of player actuated push buttons 24, 26, 28, 30, 32, 34, and 36 to permit a player to select a wager amount, begin play of the game, cash out remaining credits, and to control other aspects of game play. In a preferred embodiment of a bowling theme virtual reel type slot machine according to the present invention, the control buttons preferably have the following functions:

[0011] "How to Play" button 24, when actuated, causes to appear on a video display a

partible of possible awards and their values, the rules of the game, and instructions on how to play the game.

- [0012] "Bet 1 Per Line" button 26, which wagers one coin on each payline (there are 8 paylines in the example 3x3 game format) and which initiates play.
- [0013] "Bet 2 Per Line" button 28, which wagers two coins on each payline and initiates play.
- [0014] "Bet 3 Per Line" button 30, which wagers three coins on each payline and initiates play.
- [0015] "Bet 4 Per Line" button 32, which wagers four coins on each payline and initiates play.
- [0016] "Bet MAX" button 34, which wagers the maximum amount of coins on each payline and initiates play.
- [0017] PLAY – begins play of the game.
- [0018] The invention contemplates that other common formats may be utilized, such as a 9 coin per line maximum wager utilizing the buttons "Bet 1 Per Line" – "Bet 2 Per Line" – "Bet 3 Per Line" – "Bet 5 Per Line" – and the "Bet MAX" button (in this instance 9 per line).
- [0019] The gambling device 10 may also include a touch screen control having a plurality of regions designated for controlling wager amounts and other aspects of play of the gambling device 10. Such touch screen control may be provided in addition to the control buttons, or as an alternative thereto, or the gambling device 10 may be controlled by a combination of push buttons and touch screen regions. as a further additional or alternative mechanism for permitting a player to enter a control input, the gambling device 10 may include a handle 40 for initiating play of the gambling game after the placement of a wager. The handle 40 is preferably an alternative to initiating play of the game by depressing the control button 36.
- [0020] Preferably, the gambling device 10 is a computer operated device including,

without limitation, a CPU, system bus, RAM, ROM, and hard drive components (not shown), of the same general type as described in U.S. Patent No. 5,971,851, the entire disclosure of which is incorporated herein by reference.

[0021] The gambling device 10, in the illustrated bowling theme embodiment, includes suitable software and/or firmware operative to cause a so-called "virtual reel" display comprising a matrix of three horizontal rows 42, 44, and 46 and three vertical columns 48, 50, and 52 forming nine square display regions operative to display bowling related symbols or indicia such as "Strike Bonus," "Spare Bonus," and representations of bowling pins. The gambling device 10 may additionally display certain non-bowling related symbols, such as the number "7."

[0022] The gambling device 10 is preferably operative to permit a player to "spin" one or more of the nine square display regions through suitable software and/or firmware. The "spinning" capability of the "virtual reels" may vary within the scope of the present invention. For example, a player might be able to selectively "spin" one or more of the nine square regions on an individually selected basis. Alternatively, a player might be able to selectively "spin" one or more of the horizontal rows 42, 44, and 46. In still another alternative, a player might be able to "spin" one or more of the horizontal rows 42, 44 and 46. In still another alternative, a player might be able to "spin" one or more of the vertical columns 48, 50, and 52. It should be understood that although the preferred embodiment has been illustrated with a three-by-three "virtual reel" matrix, greater or fewer horizontal rows and/or vertical columns may be provided within the scope of the invention. Further, non-rectangular arrays of game symbols such as circles, hexagons, random patterns, etc. may be utilized.

[0023] Various wager opportunities and associated winning conditions for play of the gambling game 10 may be utilized. For example, a player might be afforded an opportunity to place one, two, or three wagers in order to play row 42 only, or rows 42 and 44, or rows 42, 44, and 46. The potential winning amounts are preferably greater for play of multiple rows. Alternatively, or additionally, players may be afforded the opportunity to wager on one or more of the vertical columns 48, 50,

and 52, or might be afforded an opportunity to wager on the occurrence of a particular symbol in a particular square within the matrix.

[0024] In accordance with the invention, one or more regions of the video display screen 14 are operative to display a video representation of at least one bonus event upon occurrence of one or more bonus event triggering conditions). In the illustrated example preferred embodiment, the bonus event comprises at least a portion of a bowling theme. The bonus event representations may be displayed on an upper portion of the video screen 14, above the central virtual reel display, or may alternatively be displayed centrally, in place of the virtual reel display. In accordance with the example bowling theme embodiment, the bonus event includes video representations of at least one bowling lane 61, at least one bowling ball 62, and an array of bowling pins 64.

[0025] The bonus event triggering conditions are preferably predetermined combinations of bowling theme symbols in alignment in one or more rows or columns. Further, more than one bonus event, triggered by different conditions, and with different potential winning opportunities might be provided. For example, alignment of three "Strike Bonus" symbols in a single row might trigger a "spare bonus" event, and alignment of three "Spare Bonus" symbols in a single row might trigger a "spare bonus" event. Further, the gambling device 10 might be programmed such that the "strike bonus" event occurs with less frequency and has a higher potential winning amount than a "spare bonus" event. The bonus event may be associated with an optional or mandatory additional wager, or may require or permit no further wagers beyond those initially placed for play of the game. Also, the payoffs for the bonus event(s) may be fixed amounts, a fixed multiple of a wager, a progressive jackpot, a randomly determined amount, or a percentage of a progressive jackpot. Further, the bonus event(s) may have multiple potential payoff amounts that depend upon results obtained by a player in the bonus event.

[0026] As an alternative to randomly occurring predetermined winning conditions, the bonus activating or trigger event may be a predetermined player controlled condition, such as placement of a certain wager or certain combinations of wagers.

[0027] In accordance with an important aspect of the invention, the electronic gambling device 10 includes a control input, such as a trackball 38 mounted on a horizontally extending front support platform 39, to permit a player to make a control input that at least partially controls the video representation associated with the bonus event. In the illustrated embodiment, a player may manipulate the trackball 39 to control the position of the bowling ball 62 on the lane 61. In addition, or alternatively, the trackball 38 may permit a player to control timing, release point, hook, and speed of the ball 62. The present invention contemplates that the control input through the trackball 38 may be solely for player amusement and have no actual effect on the outcome of the bonus event or any player wager, or may alternatively control, or at least partially control, the outcome of at least a portion of the play on the electronic video gaming device 10. In accordance with the currently preferred embodiment of the invention, the player control input thought the trackball 38 is operative to control only the video representation of the ball 62, and has no effect on the outcome of the bonus event or any other player wager. In this manner, the gambling device 10 affords a player amusement feature, while at the same time maintaining compliance of the device 10 with odds-based payoff statistics that would be upset by a skill-based effect of player bowling ball manipulation on wagering outcomes. Further, the player control input may control only a portion of the video representation associated with the bonus event, and may have no effect on the actual outcome of the video representation. For example, the trackball 38 may control the initial position of release of the bowling ball, but have no effect on how many pins fall.

[0028] As an alternative to the trackball 38, or in combination therewith, other player control input mechanisms may be employed such as a computer mouse, touch screen light pen or gun, joystick, steering wheel, pedals, buttons, etc. Further, although the present invention has been illustrated and described with reference to a bowling theme embodiment, the teaching and concepts of the invention may be implemented in connection with various other themes, such as race car themes, shooting gallery themes, hunting themes, trap shooting themes, sailing themes, tennis themes, golf themes, baseball themes, football themes, soccer themes,

hockey themes, basketball themes, horseshoes themes, horse racing themes, etc.

[0029] It is to be understood, however, that even though numerous characteristics and advantages of the present invention have been set forth in foregoing description, together with details of the structure and function of the invention, the disclosure is illustrative only, and changes may be made in detail, especially in matters of shape, size and arrangement of parts or types of material within the principles of the invention to the full extent indicated by the broad general meaning of the terms in which the appended claims are expressed.

[0030] While the present invention has been particularly shown and described with reference to the preferred mode as illustrated in the drawing, it will be understood by one skilled in the art that various changes in detail may be effected therein without departing from the spirit and scope of the invention as defined by the claims.